INPUT IT Intelligence Services

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September 20, 1996

Ms. Peggy Waxter
Orion Atlantic
2440 Research Boulevard -- Suite 400
Rockville, MD 20850

via fax 301-258-3222

Dear Peggy:

Thank you for sending INPUT your RFP on Private Networking in developing countries. We have examined and discussed it and find the topic is beyond our scope.

We would, however, like to be kept on your RFP list for the future.

I think it would be useful for us to meet the next time I am in the Washington area. I can review INPUT's experience and capabilities so that you can have a better idea how to utilize our services. I will call you before my next trip.

Sincerely,

Tom O'Flaherty
Vice President

ORION ATLANTIC L.P.

13 September 1996

Input
Thomas Flaherty
400 Frank Burr Blvd.
Teaneck, NJ 07666 USA

Dear Thomas:

The enclosed document is a ***Request for Proposal (RFP)*** for a ***Private Networking Market Study***. Orion Atlantic plans to commission this study by October 11, 1996, and would like your organization to respond. If your organization is unable to respond to this RFP or does not care to be on our list to receive future RFPs, I would appreciate your informing me in writing.

If you have any questions, please don't hesitate to contact me at Orion Atlantic, L.P., 2440 Research Blvd., Rockville, MD 20850 USA. I look forward to receiving your response.

Sincerely,

Peggy Waxter

Peggy Waxter
Manager, Business Analysis

Enclosure

2440 Research Boulevard, Suite 400, Rockville, Maryland 20850 USA
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PRIVATE NETWORKING MARKET STUDY

Request for Proposal

Orion Atlantic, L.P.
2440 Research Boulevard
Suite 400
Rockville, Maryland, 20850

Contact: Peggy Waxter

Telephone: +1 301 258 3248
Facsimile: +1 301 258 3222

INTRODUCTION

1.1 Objective

This document represents a Request For Proposal (RFP) for selecting an independent firm to provide Orion Atlantic with a ***private networking market study***. The need for this study arises out of Orion's requirement for a business planning document that provides a consistent reference source for senior management as Orion Atlantic moves into the 21st century. It is a well known fact in this highly competitive market that early penetration into emerging regions of the world (e.g., Eastern Europe, former Soviet Union and South America) is critical in order to capture a significant share of the target market. Orion Atlantic fully intends to continue being a premier global provider of sophisticated business networks to Global 1000 corporations in its current markets and emerging growth areas.

This RFP identifies specific data and market research activities desired by Orion Atlantic, L.P. to assess current and emerging market trends. Specifically, Orion has identified the following data which must be obtained from primary and secondary resources:

- addressable market (size) both terrestrial and satellite based,
- growth (annual and compound annual growth rate - CAGR),
- networking trends,
- emergence of new applications,
- market environment (i.e., socio, economic, regulatory, and technological), competition, and,
- target markets in the following geographic areas:

    - US Transatlantic Traffic (not US domestic)
    - Western Europe
    - Eastern Europe
    - Former Soviet Union
    - Middle East
    - South America

Companies today are compelled to adjust to pan-European and global competition as they find themselves involved in the ever-growing state of mergers, acquisitions and alliances. The driver of this change is globalization. Unfortunately, most large organizations cannot react fast enough to the growing complexity of the business environment that globalization causes. As a result, today's network architectures, both public and private, have not kept up with the emerging business demands caused by globalization. In the next decade, the interaction of three forces: *market demand, technological development and deregulation* will determine the direction that telecom markets take.

This market study will assist Orion in focusing and capitalizing on propitious niches in high growth telecommunications services in its selected geographic markets.

1.2 Company Background

Orion Atlantic is an international partnership of seven multinational leaders in communications, aerospace and international trade. The partners include: British Aerospace, COM DEV, Kingston Communications, Matra, Martin Marietta Commercial Launch Services, Inc., Nissho Iwai Corporation and Orion Network Systems.

Orion Atlantic provides international end to end private corporate networking services through collaboration with locally licensed sales representatives and licensed ground operators in over thirty countries throughout the Orion 1 footprint (see attached Orion satellite coverage maps). Orion's combined global and local approach delivers true end-to-end control of networks and one single point of accountability for sales, service and support worldwide. Strong local market influence strips away barriers and provides Orion Atlantic customers with a unique installation guarantee of private networks unheard of before in the provisioning of international telecommunications.

Orion Atlantic mission is to provide advanced private communications network solutions to global multinational organizations. Multinational organizations seeking either transatlantic or pan-European (and in the future, South American and Asian) network solutions utilize Orion's flexible, cost-effective and superior network services.

Orion has developed and operates one of the first privately owned international satellites, Orion 1, delivering multimedia applications through its satellite-based customized private communications networks as well as transmission capacity and video distribution services. Orion's efforts have been focused on the design, construction and implementation of a global satellite communications system that meets the expanding telecommunications needs of multinational businesses. In the 1998-1999 timeframe, Orion 2 will be launched to meet the demands of the South American, Middle East and former Soviet Union markets.

At the present time, Orion's product portfolio encompass the following:

- **Digital Link** - a point-to-point and point-to-multipoint private network that can transmit a wide range of data applications to virtually an unlimited number of remote sites from a central operations center, at bandwidths ranging from 19.2 to 2048 Kbps. Applications include: remote processing, WAN diversity/redundancy, off-network extensions, Internet access, disaster recovery and occasional use videoconferencing.

- **Digital Channelized Link** - a similarly cost-effective solution for international private networking needs, this multiplexed version of Digital Link integrates digitally compressed voice and data applications into a single 19.2 to 1920 Kbps satellite link; enabling dynamic utilization of as many as 30 voice/fax channels and up to 16 high performance data channels. Integrated X.25 data and compressed voice, as well as branch office integration are among the many applications supported by Digital Channelized Link.

- **Virtual Integrated Sky Network (VISN)** - an integrated, full-mesh (any-to-any), frame relay service, VISN is designed to support the multimedia requirements (voice, fax, data and video) of virtually an unlimited number of corporate enterprise networks. VISN is capable of dynamically allocating bandwidth in increments of 64 Kbps to 2048 Mbps to any site in the network on an as-needed and "pay-by-the-drink" basis. VISN supports such standard networking protocols as X.25, TCP/IP, SNA/SDLC, switched/compressed voice via frame relay access devices (FRADs) and native Ethernet bridging. Near-term versions of VISN will incorporate X.75, Token Ring, BSC and NNI. In addition, ISDN and ATM interoperability will be supported.

- **DirectNet** - Orion's newest service, offers international Internet service providers and international corporate end users a range of high-speed and highly flexible Internet solutions. DirectNet combines Orion's end-to-end, high-speed networking solutions capabilities with one of the world's fastest Internet backbones. Our 45 Mbps nationwide backbone network connects to all four of the major US Network Access Points (NAPs) via 100 Mbps FDDI rings. By selecting DirectNet, international Internet traffic is immediately speeded along a direct, dedicated broadband connection to the North American Internet (which contains over 80% of Internet content).

- **Bandwidth On Demand (BOD)** - The BOD solution is designed to meet a wide range of business situations: Videoconferencing; standby/redundant/emergency facilities; videobroadcast needs; periodic traffic congestion; large file transfers, and temporary/mobile requirements. BOD service will provide Orion customers with the capability to increase their communications capabilities with a cost structure that more directly reflects corporate growth and the fast-paced communications marketplace. With BOD and other complementing Orion services, the customer can purchase dedicated transmission capacity to meet basic growth but also have extra capacity ready for temporary and/or periodic needs at a reasonable cost. The BOD service provides all of the functionality of reliable standard Orion services, e.g., high availability, dedicated roof top-to-roof top facilities and full network management.

RFP SPECIFICATIONS

2.1 Market Analysis

This study should be designed so that it accurately defines the market size and identifies emerging trends in the private communications networking services market during the timeframe 1997 - 2002.

Orion currently offers networking services via its Orion 1 satellite and other satellite systems. In the next couple of years Orion 2 and Orion 3 will be launched providing coverage to the former Soviet Union, Middle East, South America and Asia Pacific regions. As mentioned previously this study will only encompass the following geographic territories:

- US Transatlantic Traffic (not US domestic)
- Western Europe
- Eastern Europe
- Former Soviet Union
- Middle East
- South America

2.2 Market Environment

There are many macro and micro factors (both present and future) that will shape the market environment as we progress into the 21st century. These factors should be discussed on both a **regional and inter-regional basis.** The global market is clearly segmented in terms of its infrastructure and the differing nature of the opportunities available in underdeveloped, developed or developing economies. In this section, we are interested in these market environment factors **(e.g., socio, economic, regulatory, and technological)** that affect the telecommunications market **in and between** each geographic regions listed below:

- USA
- Western Europe
- Eastern Europe
- Former Soviet Union
- Middle East
- South America

Underdeveloped economies are poorly equipped with a telecommunications infrastructure and often growth is constrained by the lack of adequate capacity to support business needs. Here, there are many opportunities for the provision of basic services up to the

most advanced network services. In developed economies, there currently exists licensed providers of telecommunications services which are complemented by the demand for advanced network services, covering degrees of network and service management as well as new applications. With developing economies, deregulation and the need for more sophisticated telecommunications services means that these countries represent a very attractive market to service providers.

2.3 Market Size

Determining the total market size for private and enhanced networking services is one of the key outcomes in the completion of this study. The information from this portion of the study will be a significant driver in the determination of Orion's addressable and target markets. As a requirement for this part of the study, the total market should be broken down by product/service and by geographic territory on a per annum basis, including the CAGR. Services/markets that should be included are:

- ***VSAT***
- ***Private Circuits (leased Lines)***
- ***Virtual Private Networks (VPNs)***
- ***Value Added Networks (VANs)***
- ***X.25 Networks***
- ***SNA/SDLC Networks (AS400)***
- ***Ethernet Networks***
- ***Frame Relay***
- ***Videoconferencing and Disaster Recovery Services (Bandwidth on Demand)***
- ***Internet Access***
- ***Intranet Services***

This portion of the study should clearly quantify the market size of each of the services/ applications listed above by region and between each region.

The market size can be stated in various ways. Examples of such are as follows::

- Units of VSATs and estimated revenues of the VSAT market
- Number of Leased Lines and value in revenue dollars per annum
- Number of Frame Relay ports at the end-user location and revenue dollars per annum
- Number of VPN ports at the end user location and revenue dollars per annum
- Market size in US dollars and/or statistics could be utilized to further quantify market size and growth for particular applications such as Videoconferencing and Disaster Recovery

An example of the level of detail that we require is as follows:

- Determine the size of the leased line market in Western, Eastern Europe and the former Soviet Union, and then detail the size of the market between each those three regions, and so forth for each region.
- Of the pan-Western European traffic, how much of it goes to each of the regions mentioned on the previous page, and so forth for each region.

Perhaps a matrix could best illustrate the answer to these questions. The methodology for determining these numbers must be included in the study.

2.4 Emerging Services and Applications

Demand of telecommunications services in the next century will be marked by a growing range of new services as a result of the trend for seamless global networks, resulting from: re-engineering; outsourcing; substitution for other modes of communication (e.g., videoconferencing replacing business travel); increased bandwidth requirements; cross-border communications; growth in the economy; deregulation; advances in technology, and so on.

This portion of the study should provide an in-depth analysis as to what major services and applications are on the horizon in the next five years in each geographic region. Also, of importance, which industries are seeking these emerging services and applications. The results of this information need to be supported.

We are particularly interested in the role of the Internet, deployment of intranets, and the role that these new technology platforms will play in supporting emerging services and applications.

2.6 Competition

Many competitors are developing global capabilities through a combination of investments and alliances. Global competition comes from a variety of sources: global players (e.g., Concert, GlobalOne, etc.); regional PTTs; system integrators; VAN/VAS suppliers; and other new entrants (e.g., resellers, computer companies, etc.).

It is vital to Orion to understand which competitors are dominant in specific markets throughout the regions we have outlined. With so many alliances offering similar services, building overlay or interconnect infrastructures, and targeting the same customers (principally multinational corporations), there will be fierce competition in the emerging global marketplace with consequent pressure on costs, services, quality and pricing.

This section should provide at a minimum a description of the competition, partners/alliances, products/services offered, future product plans, network locations, target markets, pricing schemes, sales strategies, strengths, weaknesses, etc.

PROPOSAL PROCESS

3.1 Submission of Bids

This request for proposal has been sent to a number of prospective bidders. The responses to this RFP must reach Orion Atlantic by **12:00 Noon (EST), October 1, 1996** to be considered for evaluation. Bidders should forward their proposal in triplicate to Ms. Peggy Waxter, Orion Atlantic, L.P., 2440 Research Blvd., Suite 400, Rockville, MD 20850 USA.

Responses to the proposal should include company corporate background, statement of work, methodology; in addition, details and explanatory materials to make the approach taken as clear as possible. Curriculum vitae of all study participants, timeframe for completing this study and the price in US dollars must also be a part of the response.

3.2 Completion Date

Orion Atlantic has targeted the study to be completed by **December 13, 1996** so that the proposals may be reviewed before the Christmas holidays.

3.2 Contract Award

Responses will be evaluated with an award occurring by **October 11, 1996**. Once the contract has been awarded to a bidder, it is expected that a kick-off meeting will take place the following week. Subsequent to that kick-off meeting, interim meetings (on-site, if possible) will be scheduled on a bi-weekly basis. If it is not feasible to meet face to face, conference-call meetings will be scheduled.

3.3 Deliverable

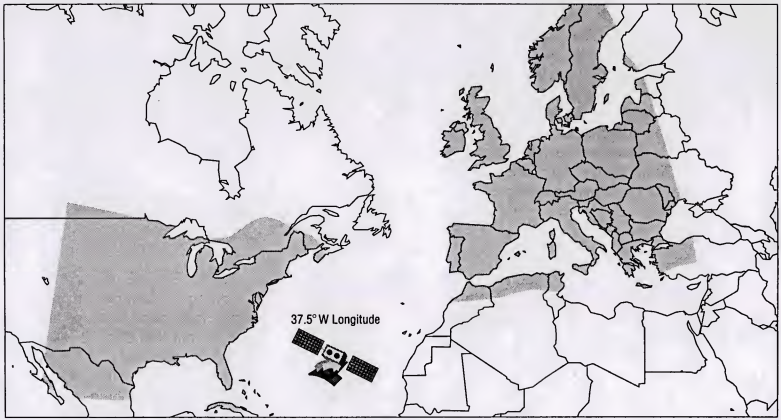
The market study should be both a **qualitative and quantitative** report with supporting tables and graphs that clearly illustrate niches in high growth telecommunications services in Orion's selected geographic markets.

The final document should be sent in triplicate.

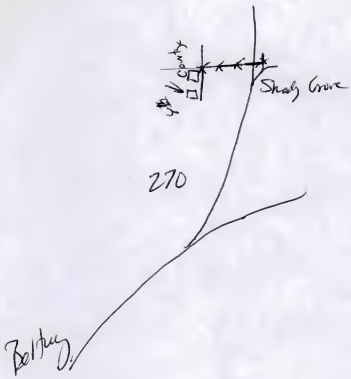
3.4 Contact

Questions concerning this RFP, content requirements, and/or the bidding process, etc. should be forwarded in writing to Peggy Waxter at Orion Atlantic, 2440 Research Blvd., Suite 400, Rockville, MD 20850 USA or by facsimile, +1 301 258 3222.

Orion 1 Footprint



Proposed Orion 2 Footprint


Shady Grove
270

Financial accounting

Administrative

Sales/POS

Order Entry/Order Management

Manufacturing

Distribution

Warehousing